

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau



(43) International Publication Date  
17 February 2005 (17.02.2005)

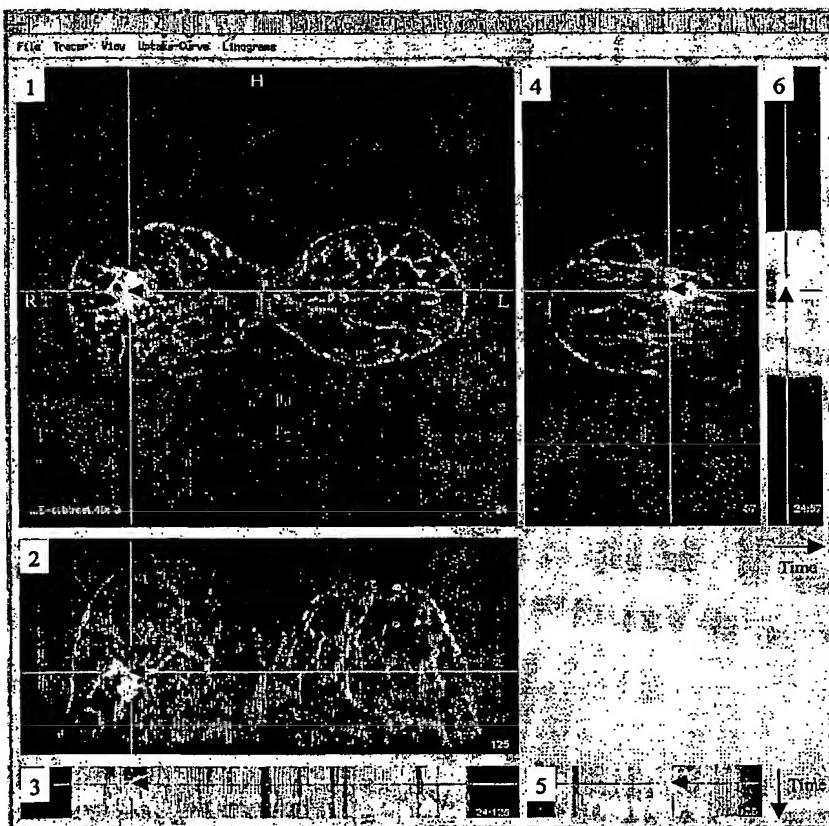
PCT

(10) International Publication Number  
**WO 2005/015502 A1**

- (51) International Patent Classification<sup>7</sup>: **G06T 11/20**
- (21) International Application Number: **PCT/GB2004/003421**
- (22) International Filing Date: 6 August 2004 (06.08.2004)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:  
0318701.0 8 August 2003 (08.08.2003) GB
- (71) Applicants (*for all designated States except US*): **THE INSTITUTE OF CANCER RESEARCH; ROYAL CANCER HOSPITAL [GB/GB]; 123 Old Brompton Road, London, London, Greater London SW7 3RP (GB). THE ROYAL MARSDEN NHS FOUNDATION TRUST [GB/GB]; Downs Road, Surrey, Surrey SM2 5PT (GB).**
- (72) Inventors; and
- (75) Inventors/Applicants (*for US only*): **KHAZEN, Michael [GB/GB]; 41 Sevenoaks Close, Sutton, Sutton, Surrey SM2 6NL (GB). LEACH, Martin Osmund [GB/GB]; 24 Blenheim Gardens, Wallington, Wallington, Surrey SM6 9PP (GB).**
- (74) Agents: **HACKNEY, Nigel et al.; Mewburn Ellis LLP, York House, 23 Kingsway, London, Greater London WC2B 6HP (GB).**
- (81) Designated States (*unless otherwise indicated, for every kind of national protection available*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM,

[Continued on next page]

(54) Title: A METHOD AND APPARATUS FOR IMAGE PROCESSING



(57) Abstract: There is disclosed a method and apparatus for image processing of e.g. MRI images. A method and apparatus is disclosed enabling one to determine if an image contrast/intensity change of a chosen point within an imaged subject volume (e.g. a lesion) is an artefact of motion in the imaged subject. An apparatus and method for fast visual assessment of the imaged subject volume's alignment quality (within a time-sequence of images) is provided, and an interactive display tool enabling effective use of this method is provided.



TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM,  
ZW.

SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ,  
GW, ML, MR, NE, SN, TD, TG).

- (84) **Designated States** (*unless otherwise indicated, for every kind of regional protection available*): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI,

**Published:**

— *with international search report*

*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*